# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of	)	
Revision of the Commission's Rules to	)	CC Docket No. 94-102
Ensure Compatibility with Enhanced	)	22 Booker 10. 91 102
911 Emergency Calling Systems	)	
	)	
Wireless E911 Phase II Implementation	)	
Plan of Nextel Communications, Inc.	)	

# NEXTEL COMMUNICATIONS, INC. PHASE I AND PHASE II E911 QUARTERLY REPORT November 3, 2003

To: Chief, Enforcement Bureau
Chief, Wireless Telecommunications Bureau

## **INTRODUCTION**

Pursuant to the October 12, 2001 Order of the Federal Communications

Commission ("Commission" or "FCC") in CC Docket No. 94-102, Nextel

Communications, Inc. ("Nextel") respectfully submits this Enhanced 911 ("E911")

Quarterly Report on its implementation of Phase I and Phase II E911.

Nextel continues to produce noteworthy E911 results and has deployed 353 public safety answering points ("PSAPs") with Phase II E911 service in the thirteen months since it achieved its first Phase II benchmark per Nextel's Waiver Order.<sup>2</sup> During this same period, Nextel brought its total Phase I deployments to 933 PSAPs. Among other notable accomplishments in this reporting period, Nextel has launched two new Assisted

<sup>&</sup>lt;sup>1</sup> In the Matter of Revision of the Commission's Rules To Ensure Compatibility With Enhanced 911 Emergency Calling Systems, Wireless E911 Phase II Implementation Plan of Nextel Communications, Inc., Order, CC Docket No. 94-102, FCC 01-295, released October 12, 2001 ("Nextel Waiver Order").

<sup>&</sup>lt;sup>2</sup> Per Nextel's Waiver Order, Nextel was required to begin selling and activating an A-GPS capable handset on October 1, 2002.

Global Positioning Satellite ("A-GPS") capable handsets—for a total of four A-GPS capable models available in its product portfolio—has deployed 69 additional Phase II PSAPs since the last Report, and is the first wireless carrier to fully deploy Phase II service with the five boroughs of New York City. As demonstrated by these activities, Nextel is committed to providing public safety officials with Phase II E911 as soon as possible. Nonetheless, the complexities of deploying Phase II technology, as well as in some cases PSAP readiness and PSAP "one-off" operational or technical requests, create challenges requiring resources and cooperation among all parties to facilitate efficient deployments. Additionally, there continue to be literally thousands of PSAPs from whom Nextel has received neither a Phase I nor a Phase II valid request. As a result, Nextel's ability to get E911 service to its customers is sharply curtailed by the readiness of many PSAPs throughout the country.

Herein, Nextel provides an update on all relevant events impacting handset upgrades and network infrastructure necessary to enable Phase II E911 location capabilities as well as a listing of all deployed and pending requests for Phase I and Phase II E911 service and the status of each request.

# **BACKGROUND**

In its November 9, 2000, Waiver Request seeking a delay to begin implementing its Phase II E911 technology, Nextel affirmed that it required additional time vis-à-vis other wireless carriers because its integrated digital enhanced network ("iDEN") air interface, which is used by few other carriers and only on a regional basis, is supported by a single manufacturer—Motorola. Nextel, along with Motorola and other vendors, devoted substantial resources to develop, test, and install network hardware and software,

and to develop, test and launch A-GPS capable iDEN handsets. Because of these complexities and the fact that there had been no GPS capability available for the iDEN platform, it was not technologically possible to develop an iDEN A-GPS handset capable of delivering FCC-compliant automatic location information ("ALI") prior to October 1, 2002.

Pursuant to Nextel's Waiver Order, in which the Commission noted that Nextel faced "special circumstances that affect its deployment of Phase II," the Commission imposed the following Phase II E911 implementation benchmarks:

October 1, 2002: Begin selling and activating A-GPS-capable handsets;

December 31, 2002: Ensure that at least 10% of all new handsets activated are

A-GPS-capable;

December 1, 2003: Ensure that at least 50% of all new handsets activated are

A-GPS-capable;

December 1, 2004: Ensure that 100% of all new digital handsets activated are

A-GPS-capable;

December 31, 2005: 95% of all subscriber handsets in service are A-GPS-

capable.4

To date, Nextel has achieved its first benchmark, continues to work toward its next benchmark (ensuring that 10% of all new handsets activated since December 31, 2002 are A-GPS capable), and continues to deploy its valid requests for E911 service at a rapid pace. Myriad issues, however, including inadequate funding at local, state and

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<sup>&</sup>lt;sup>3</sup> Nextel Waiver Order at ¶19. The Commission also stated "it is reasonable to expect that Nextel might find it more difficult to meet the same schedule as carriers employing the more common air interfaces, because location technology vendors and equipment manufacturers will have substantial incentives to introduce ALI products first for those segments of the market with larger market share. In addition, iDEN is a proprietary Motorola technology and, to the extent that a location technology requires new or modified handsets and network equipment, Nextel must rely on Motorola as a sole source provider." *Id.* 

<sup>&</sup>lt;sup>4</sup> Nextel Waiver Order at ¶37.

federal levels, prevent the vast majority of PSAPs throughout the country from receiving and using a caller's latitude and longitude information and, given the status quo, the PSAPs likely will not be ready in the near future.<sup>5</sup>

#### **DISCUSSION**

#### A. A-GPS Capable Handsets

Following the launch of its first A-GPS capable handset, the i88s, on October 1, 2002 in compliance with its first Phase II implementation benchmark, Nextel introduced its second A-GPS capable handset, the i58sr, on January 1, 2003. In the three months since its August 1, 2003 Quarterly Report, Nextel has commercially launched two more A-GPS capable handsets, the i205 and the i730, and an additional two A-GPS capable handset models are scheduled to launch before the end of January 2004. Importantly, as Nextel introduces new A-GPS capable handsets, it is phasing out non-AGPS models to facilitate and expedite penetration of ALI capabilities into its customer base.

Nextel, via an independent third-party consultant, completed accuracy testing of each A-GPS handset and met the Commission's accuracy standards. Per Nextel's Waiver Order, the next deployment benchmark period on which Nextel must report ends on November 30, 2003. Thus, Nextel will report on that benchmark in its next Quarterly Report in February 2004.<sup>6</sup>

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<sup>&</sup>lt;sup>5</sup> On September 30, 2003, in response to House and Senate introduction of the E911 Implementation Act of 2003 ("Act") that would authorize money to facilitate Phase II PSAP readiness, the Bush administration stated it opposed new Federal grant money per the Act for wireless E911 deployment. *See* "Bush administration opposes new E911 grants," RCR Wireless News (Oct. 1, 2003).

<sup>&</sup>lt;sup>6</sup> Nextel's Waiver Order states that "Nextel must report, in the Quarterly Report immediately following the benchmark date... for the periods of December 31, 2002 to November 30, 2003..., the percentage of new handsets activated nationwide during the respective periods that were A-GPS capable, as well as the total number of new handsets during those periods that were A-GPS capable." Nextel Waiver Order at ¶ 32.

### B. Network Infrastructure

Nextel remains committed to working cooperatively with PSAPs throughout the country to deploy them as efficiently as possible and, since its August Report, Nextel has made significant progress deploying 69 additional PSAPs with Phase II service. Nextel continues to deploy these PSAPs with its two Phase II methodologies—Emergency Service Routing Keys ("ESRK") and Emergency Services Routing Digits ("ESRD").

As Nextel noted in its August 1, 2003 Quarterly Report, in an on-going effort to provide public safety with the best location information possible on its wireless system, Nextel, with the assistance of its third party vendor Intrado, has implemented changes to its provision of location information that enable it to offer a dynamic "class of service" indicator that identifies calls as either Phase I or Phase II in a manner that had been requested by PSAPs. Initially this functionality was provided to PSAPs in territories served by Verizon, Sprint and SBC, and in the last three months Nextel has completed rollout, where technically possible, of this functionality to PSAPs in areas served by other LECs.

#### C. Phase I Requests

With respect to the Commission's requirement that Nextel provide "information on all pending Phase I and Phase II requests," Nextel has attached an <u>Appendix</u> listing all of its 258 pending Phase I requests and their current status. For each of the on-going Phase I deployment efforts, the <u>Appendix</u> provides, as required by the Commission, the

<sup>&</sup>lt;sup>7</sup> See Nextel Waiver Order at ¶32.

<sup>&</sup>lt;sup>8</sup> On June 6, 2003 the Commission released a Public Notice setting forth uniform requirements governing the Appendix format in which carriers submit Phase I and Phase II deployment information with each Quarterly Report. Per these requirements, Nextel has attached an <u>Appendix</u> listing all of its E911 deployments. *See* Public Notice, *Wireless Telecommunications Bureau Standardizes Carrier Reporting on Wireless E911 Implementation*, CC Docket No. 94-102, rel. June 6, 2003.

master PSAP registry identification number ("PSAP ID"), PSAP name, PSAP state, PSAP county, request date, whether the request is valid, 9 a projected deployment date, reasons hindering deployment within the first six months of a PSAP's request and comments. 10 The proposed deployment dates in the <u>Appendix</u> are *target launch dates*, which Nextel and the relevant PSAP are striving to meet. Nextel is in regular contact with each of these PSAPs and is working to deploy Phase I E911 as soon as possible. Nextel has fully deployed Phase I E911 service with 933 PSAPs, which are listed in the <u>Appendix</u>.

With regard to its Phase I deployment efforts, Nextel reiterates herein that in some cases Phase I E911 deployments, similar to Phase II deployments, continue to be complicated by a number of factors – many of which are outside of Nextel's control. As Nextel outlined in its May 18, 2001 letter to the Wireless Telecommunications Bureau, <sup>11</sup> there are essentially five stages of Phase I deployment and issues that arise in any of these areas can cause delay in the deployment effort. The five stages are:

(1) Data Collection – Nextel collects from the PSAP and LEC information necessary to understand the equipment used by the PSAP and LEC, the

<sup>&</sup>lt;sup>9</sup> Per Nextel's Waiver Order, Nextel is required to report whether it believes each deployment request is (or is not) valid. *See* Nextel Waiver Order at ¶32. On March 24, 2003 Nextel filed a letter in WT Docket No. 03-76 stating that Nextel has been and continues to be in contact with PSAPs that have requested Phase I or Phase II service and will deploy these PSAPs as soon as possible pursuant to a mutually agreeable implementation schedule. Thus, Nextel is complying herein with the Commission's requirement that it mark as "valid" or "invalid" each PSAP request, although as a practical matter, Nextel's deployment team is working with each PSAP's Phase I and Phase II pending request listed in the <u>Appendix</u> to deploy them as soon as possible pursuant to a mutually agreed-upon time frame.

<sup>&</sup>lt;sup>10</sup> In some cases there are delays caused by technology issues. Such delays do not necessarily mean that the PSAP or Nextel is not "ready" for Phase I service. Rather, it often means there are issues involving incompatible technologies between Nextel, the LEC and/or the PSAP.

<sup>&</sup>lt;sup>11</sup> In the Matter of Revision of the Commission's Rules To Ensure Compatibility With Enhanced 911 Emergency Calling Systems, Letter to Kris Monteith, Chief, Policy Division, Wireless Telecommunications Bureau, from Lawrence R. Krevor, Vice President-Government Affairs, May 18, 2001.

- capacity of the particular 911 system, and the location of certain equipment (e.g., Selective Routers, dispatch centers), among other things.
- (2) Network Recommendation Based on the data collected, Nextel determines how it will route calls to the Selective Router(s), e.g., how many trunks will be needed based on the number of Selective Routers, which Mobile Switching Center ("MSC") will be routed to each Selective Router and the trunking capacity needed for each Selective Router based on load analyses.
- (3) Routing Decisions/Awaiting Trunk Orders Using the information collected in the first two phases, Nextel places trunk orders with the LEC. Trunk delivery typically requires 30 to 60, and sometimes 90, days. Once delivered, the trunks are tested. If for any reason the trunks fail the testing process, Nextel is typically required by the LEC to start over adding an additional 30, 60 or 90 days to the trunk deployment process.
  - During this time, Nextel and the affected PSAP(s) map out the routing of all 911 calls in the area, ensuring that every 911 call from every Nextel cell site or cell sector is transmitted to a predetermined PSAP. Where multiple PSAPs are involved, or in areas on the border of adjacent PSAPs, this process often requires substantial time, cooperation and joint efforts by all parties.
- (4) Automatic Location Identification ("ALI") Database Load Nextel assigns each cell site (or cell sector) a pseudo Automatic Number Identification ("P-ANI") (a ten-digit telephone number that identifies that particular cell site or sector), and then loads that information into the LEC's ALI database. This, too, requires input and cooperation from both the LEC and PSAP to ensure the information is loaded correctly to display on the PSAP's computer terminals in the requested format.
- (5) Carrier Test This is the final stage of Phase I deployment, ensuring that the 20 digits are transmitted to the correct PSAP and displayed appropriately on the PSAP dispatcher's screen. Testing must be conducted in coordination with each PSAP to avoid burdening the PSAP during busy times and to preclude inadvertent false calls.

#### D. Phase II Requests

The <u>Appendix</u> also lists every pending Phase II request and the Commission's required information including the PSAP ID, PSAP name, PSAP state, PSAP county, request date, whether the request is valid, <sup>12</sup> a projected deployment date, reasons

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<sup>&</sup>lt;sup>12</sup> See note 9 herein.

hindering deployment within the first six months of a PSAP's request and comments.

Nextel has received 259 pending Phase II requests and has asked that each of these

PSAPs provide the documentation required in the *Richardson Order* for determining the request's validity.<sup>13</sup>

Similar to Phase I deployments, the proposed Phase II deployment dates in the Appendix are target launch dates, which Nextel and the relevant PSAP are striving to meet. Nextel reiterates that accomplishing such deployments is subject to numerous factors and parties outside of Nextel's control; thus, Nextel's deployment schedule establishes a goal toward which Nextel will work. It is possible, however, that complexities may be encountered that could delay some PSAP deployments. Nextel is in contact with each of these PSAPs and is working to deploy Phase II E911 as soon as possible within mutually agreed upon time frames. Nextel will continue to dedicate significant resources to maintain its aggressive roll out schedule to PSAPs that are capable of receiving and using location technology.<sup>14</sup>

Since October 1, 2002, its first implementation benchmark, Nextel has deployed Phase II service with 353 PSAPs, which are included in the Appendix. Nextel remains

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<sup>&</sup>lt;sup>13</sup> See generally, In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Petition of City of Richardson, Order On Reconsideration, CC Docket No. 94-102, FCC 01-293, released November 26, 2002. See also, Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Order on Reconsideration, released Nov. 26, 2002.

<sup>&</sup>lt;sup>14</sup> Separate and distinct from deployment of its Phase II technology, but incorporated by reference in its Waiver Order, as a goodwill gesture Nextel has donated \$25 million to the public safety community to facilitate rapid deployment of E911 throughout the country. In 2002 Nextel created a non-profit organization with an independent board of directors, Wireless E-911: The PSAP Readiness Fund (the "PSAP Readiness Fund"), to receive these funds from Nextel and to distribute to the public safety community. To date the PSAP Readiness Fund has awarded \$23,775,000 to the Association of Public-Safety Communications Officials ("APCO") and the National Emergency Number Association ("NENA"), two prominent, established public safety organizations serving the country, in structured grant agreements committing the funds to further E911 deployment. *See, e.g.*, APCO's Public Safety Foundation of America—a primary recipient of PSAP Readiness Fund grants—at http://www.psfa.us/.

actively engaged with PSAPs at multiple locations and anticipates deploying Phase II service in additional areas in the near future, including Washington, D.C. and remaining valid requests in the Commonwealth of Virginia and in the State of Maryland, consistent with mutually agreeable timeframes.

Despite successful Phase II deployments in numerous areas such as New York
City; Miami-Dade, Florida; Houston, Texas; King County, Washington; and Denver,
Colorado, the vast majority of PSAPs throughout the country are not ready or capable to
receive and use ALI because of factors, many outside of a PSAP's direct control, such as
lack of local, state and federal funding as well as few E911 coordination bodies for each
state that can facilitate rapid deployments. Given the status quo, the majority of PSAPs
in the country likely will not be prepared to receive or use ALI in the foreseeable future.<sup>15</sup>

## **CONCLUSION**

As required in the Nextel Waiver Order, <sup>16</sup> Nextel is providing this Quarterly Report to the Executive Directors and counsel of the Association of Public Safety Communications Officials-International, Inc. ("APCO"), the National Emergency Number Association ("NENA") and the National Association of State Nine One One Administrators ("NASNA"). Should any of these organizations or their individual PSAP members have questions or concerns about Nextel's submission, Nextel encourages them to contact Laura Holloway, at the number listed below, as soon as possible to facilitate rapid and efficient deployment of Nextel's Phase I and Phase II E911 services.

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<sup>&</sup>lt;sup>15</sup> See note 5 herein (regarding the Bush administration's opposition to new Federal grant money per the E911 Implementation Act of 2003 for wireless E911 deployment).

<sup>&</sup>lt;sup>16</sup> Nextel Waiver Order at ¶32.

Respectfully submitted, Nextel Communications, Inc.

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